



Docket No.: 22116-00011-US  
(PATENT)

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Patent Application of:  
Mark R. Burns

Application No.: 10/805,222

Confirmation No.: 9133

Filed: March 22, 2004

Art Unit: 1625

For: TETRAHYDRO- $\beta$ -CARBOLINE  
COMPOUNDS AND USE THEREOF

Examiner: Not Yet Assigned

**INFORMATION DISCLOSURE STATEMENT (IDS)**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

Pursuant to 37 CFR 1.56, 1.97 and 1.98, the attention of the Patent and Trademark Office is hereby directed to the references listed on the attached PTO/SB/08. It is respectfully requested that the information be expressly considered during the prosecution of this application, and that the references be made of record therein and appear among the "References Cited" on any patent to issue therefrom.

This Information Disclosure Statement is filed before the mailing date of a first Office Action on the merits as far as is known to the undersigned (37 CFR 1.97(b)(3)).

A copy of each reference on the PTO/SB/08 is attached.

In accordance with 37 CFR 1.97(g), the filing of this Information Disclosure Statement shall not be construed to mean that a search has been made or that no other material information as defined in 37 CFR 1.56(a) exists. In accordance with 37 CFR 1.97(h), the filing of this Information Disclosure statement shall not be construed to be an admission that any patent,

publication or other information referred to therein is "prior art" for this invention unless specifically designated as such.

It is submitted that the Information Disclosure Statement is in compliance with 37 CFR 1.98 and the Examiner is respectfully requested to consider the listed references.

The Director is hereby authorized to charge any deficiency in the fees filed, asserted to be filed or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Deposit Account No. 22-0185, under Order No. 22116-00011-US.

Dated: 12-9-04

Respectfully submitted,

By 

Burton A. Amernick

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CONNOLLY BOVE LODGE & HUTZ LLP

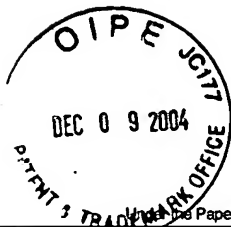
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Substitute for form 1449A/B/PTO				<b>Complete if Known</b>	
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  <i>(Use as many sheets as necessary)</i>				Application Number	10/805,222-Conf. #9133
				Filing Date	March 22, 2004
				First Named Inventor	Mark R. Burns
				Art Unit	1625
				Examiner Name	Not Yet Assigned
Sheet	1	of	2	Attorney Docket Number	22116-00011-US

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)			

FOREIGN PATENT DOCUMENTS							
Examiner Initials *	Cite No. <sup>1</sup>	Foreign Patent Document		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T
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NON PATENT LITERATURE DOCUMENTS						
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.				T <sup>2</sup>
	CA	Tetrahydro- $\beta$ -carbolines, Potential Neuroactive Alkaloids, in Chocolate and Cocoa by Tomas Herraiz, J. Agric. Food Chem. 2000, 48, pages 4900-4904				
	CB	Glutamate Receptors in the Mammalian Central Nervous System, by Seiji Ozawa et al., Progress in Neurobiology vol. 54, pages 581-618, 1998				
	CC	Glutamate Neurotoxicity and Diseases of the Nervous System, by Dennis Choi, Neuron, vol. 1, pages 623-634, October 1988				
	CD	NMDA receptors as targets for drug action in neuropathic pain, by Chris Parsons, European Journal of Pharmacology 429, 2001, pages 71-78				
	CE	Synergistic effect of uncompetitive NMDA receptor antagonists and antidepressant drugs in the forced swimming test in rats, by Zofia Rogoz et al., Neuropharmacology 42, 2002, pages 1024-1030				
	CF	Modulation of the NMDA Receptor by Polyamines, by Keith Williams, et al., Life Sciences, vol. 48, pages 469-498, 1991				
	CG	Characterization of the Effects of Polyamines on [ <sup>125</sup> I] MK-801 Binding to Recombinant N-Methyl-D-Aspartate Receptors, by Terre Sharma et al., The Journal of Pharmacology and Experimental Therapeutics, 1999, pages 1041-1047				
	CH	Endogenous indoles as novel polyamine site ligands as the N-methyl-D-aspartate receptor complex, by David Worthen et al., Brain Research 890 2001, pages 343-346				
	CI	N <sup>1</sup> -Dansyl-Spermine and N <sup>1</sup> -(n-Octanesulfonyl)-Spermine, Novel Glutamate Receptor Antagonists: Block and Permeation of N-Methyl-D-Aspartate Receptors, by James Chao et al., Molecular Pharmacology, pages 861-871 1997				
	CJ	Functional antagonists at the NMDA receptor complex exhibit antidepressant actions, by Ramon Trullas et al., European Journal of Pharmacology 185 1990, pages 1-10				
	CK	Potential Antidepressive Properties of Amantadine, Memantine and Bifemelane, Elzbieta Moryl et al., Pharmacology & Toxicology 1993, 72, pages 394-397				
	CL	The N-methyl-D-aspartate receptor channel blockers memantine, MRZ 2/579 and other amino-alkyl-cyclohexanes antagonise 5-HT <sub>3</sub> receptor currents in cultured HEK-293 and N1E-115 cell systems in a non-competitive manner, by G. Rammes et al., Neuroscience Letters 306 2001, pages 81-84				
Examiner Signature					Date Considered	

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Sheet	2	of	2	Attorney Docket Number	22116-00011-US

CM	Memantine is a clinically well tolerated <i>N</i> -methyl-D-aspartate (NMDA) receptor antagonist-a review of preclinical data, by C.G. Parsons et al., Neuropharmacology, 38, 1999, pages 735-767	
CN	NMDA Receptor Antagonists and Antidepressant Drugs, by J. Maj, Pharmacological Research, Vol. 25, Supplement 2, 1992	
CO	Anticonvulsant effects of eliprodil alone or combined with the glycine <sub>B</sub> receptor antagonist L-701,324 or the competitive NMDA antagonist CGP 40116 in the amygdala kindling model in rats, by Piotr Wlaz et al., Neuropharmacology 38, 1999, pages 243-251	
CP	Synthesis and Resolution of Racemic Eliprodil and Evaluation of the Enantiomers of Eliprodil as NMDA Receptor Antagonists, by Jorg Pabel et al., Bioorganic & Medicinal Chemistry Letters 10, 2000, pages 1377-1380	
CQ	Affinities of 5-HT Uptake Inhibitors for 5-HT <sub>3</sub> Receptors in Both Binding and Functional Studies, GJ Kilpatrick et al., Brit J. Pharmacol. 1989 98 (suppl.) #17 pages 859	
CR	The interaction of antidepressant drugs with central and peripheral (enteric) 5-HT <sub>3</sub> and 5-HT <sub>4</sub> receptors, by A. Lucchelli et al., British Journal of Pharmacology 1995, 114, pages 1017-1025	
CS	Higher-End Serotonin Receptors: 5-HT <sub>5</sub> , 5-HT <sub>6</sub> , and 5-HT <sub>7</sub> , by Richard Glennon, Journal of Medicinal Chemistry, 2003, vol. 46, number 14, pages 2795-2812	
CT	Molecular, pharmacological and functional diversity of 5-HT receptors, by Daniel Hoyer et al., Pharmacology, Biochemistry and Behavior 71, 2002, pages 533-554	
CU	Multiple MPEP administrations evoke anxiolytic- and antidepressant-like effects in rats, by A. Pilc et al., Neuropharmacology, 43, 2002, pages 181-187	
CV	Antidepressant and anxiolytic-like effects in mice lacking the group III metabotropic glutamate receptor mGluR7, by John Cryan et al., European Journal of Neuroscience, Vol. 17, pages 2409-2417, 2003	
CW	Solid Phase Synthesis of Heterocyclic Compounds from Linear Peptides: Cyclic Ureas and Thioureas, by Adel Nefzi et al., Tetrahedron Letters, vol. 38, No. 6, pages 931-934, 1997	
CX	Antidepressants for the new millennium by Phil Skolnick, European Journal of Pharmacology 375, 1999, pages 31-40	
CY	Mild Oxidative Cleavage of Borane-Amine Adducts from Amide Reductions: Efficient Solution- and Solid Phase Synthesis of <i>N</i> -Alkylamino Acids and Chiral Oligoamines, by Dennis Hall et al., J. Org. Chem. 1999, 64, pages 698-699.	
CZ	Behavioural Despair in Rats: A New Model Sensitive to Antidepressant Treatments, by Roger Porsolt et al., European Journal of Pharmacology, 47 (1978), pages 379-391	
CA1	Anxiogenic Effects of Methyl- $\beta$ -Carboline-3-Carboxylate in a Light/Dark Choice Situation, by Catherine Belzung et al., Pharmacology Biochemistry & Behavior, vol. 28, pages 29-33, 1987	

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